

-19-

Claims

1. Apparatus for accounting for consumption of a resource comprising:

5 a memory for providing a value indicative of a cumulative measure of the consumption;

a processor for generating a plurality of records, each record including at least time information, an individual measure of the consumption, and the value taking into account the individual measure; and

10 an output device for transmitting ones of the records selected based on the time information therein.

2. The apparatus of claim 1 wherein each record also includes an indicator indicative of a truncation of the value.

15 3. The apparatus of claim 1 wherein the consumption of the resource includes utilization of a postal service, and the individual measure includes postage dispensed for the utilization of the postal service.

20 4. The apparatus of claim 3 wherein each record is associated with a different transaction of postage dispensation.

25 5. The apparatus of claim 4 wherein the time information in each record is indicated by an index identifying the transaction associated with the record.

30 6. The apparatus of claim 4 wherein the time information in each record concerns a time of the transaction associated with the record.

7. The apparatus of claim 3 further comprising a controller for generating at least part of a postage

-20-

indiciu.

8. The apparatus of claim 1 wherein the consumption includes a utility consumption.

5 9. The apparatus of claim 1 further comprising a controller for cryptographically processing the plurality of records.

10. The apparatus of claim 9 wherein the plurality of records are cryptographically signed to authenticate the records.

10 11. A system for processing charges for consumptions of at least one resource, the consumptions being measured using a plurality of devices, each device being associated with a different financial account, the system comprising:

15 a receiver for receiving a plurality of records from each device, each record including at least a measure of a consumption of the resource;

a processor for determining, for each device, charges for the consumption of the resource based on a

20 subset of the records received from the device; and

a transmitter for transmitting, for each device, the charges and information concerning the financial account associated with the device to a second

25 system for settlement of the charges, and for transmitting the plurality of records associated with the device to a third system for storage.

30 12. The system of claim 11 wherein the measure of the consumption of the resource in each record includes an amount of individual postage dispensed for utilization of a postal service.

13. The system of claim 12 wherein each record also

-21-

includes a value indicative of cumulative postage dispensed, the value taking into account the amount of the individual postage in the record.

14. The system of claim 13 wherein each record also includes an indicator indicative of a truncation of the value.

15. The system of claim 12 wherein each record is associated with a different transaction of postage dispensation.

16. The system of claim 11 wherein the plurality of records include more than two records, and the subset of the records includes two selected records.

17. The system of claim 11 wherein the resource includes a utility resource.

18. The system of claim 11 further comprising a controller for cryptographically processing the plurality of records.

19. The system of claim 18 wherein the plurality of records are cryptographically signed to authenticate the records.

20. A system for assessing charges for consumptions of at least first and second different resources, the system comprising:

a communication apparatus for communicating with at least first and second devices, the first device providing a first measure of consumption of the first resource, the second device providing a measure of consumption of the second, different resource;

a processor for determining first charges based on the first measure of consumption of the first resource,

-22-

and second charges based on the second measure of consumption of the second, different resource; and
a transmitter for providing first information concerning the first charges and a first account
5 associated with the first device, and second information concerning the second charges and a second account associated with the second device for settlement of the first and second charges.

21. The system of claim 20 wherein the first and
10 second resources include different utility resources.

22. The system of claim 20 wherein the first resource includes a postal service.

23. The system of claim 22 wherein the second resource includes a utility resource.

24. The system of claim 23 wherein the utility
15 resource is a natural gas resource.

25. The system of claim 23 wherein the utility resource is an electric resource.

26. The system of claim 22 wherein the first device
20 provides at least an amount of postage dispensed for the postal service.

27. The system of claim 22 wherein the first device includes a processor for generating at least part of a
25 postage indicium.

28. The system of claim 22 wherein the first device includes a controller for generating at least part of a postage indicium.

-23-

29. A method for use in an apparatus for accounting for consumption of a resource comprising:

providing a value indicative of a cumulative measure of the consumption;

5 generating a plurality of records, each record including at least time information, an individual measure of the consumption, and the value taking into account the individual measure; and
transmitting ones of the records selected based
10 on the time information therein.

30. The method of claim 29 wherein each record also includes an indicator indicative of a truncation of the value.

31. The method of claim 29 wherein the consumption
15 of the resource includes utilization of a postal service, and the individual measure includes postage dispensed for the utilization of the postal service.

32. The method of claim 31 wherein each record is
20 associated with a different transaction of postage dispensation.

33. The method of claim 32 wherein the time
information in each record is indicated by an index
25 identifying the transaction associated with the record.

34. The method of claim 32 wherein the time
information in each record concerns a time of the
transaction associated with the record.

35. The method of claim 31 further comprising
30 generating at least part of a postage indicium.

36. The method of claim 29 wherein the consumption includes a utility consumption.

-24-

37. The method of claim 29 further comprising cryptographically processing the plurality of records.

38. The method of claim 37 wherein the plurality of records are cryptographically signed to authenticate the records.

39. A method for use in an arrangement for processing charges for consumptions of at least one resource, the consumptions being measured using a plurality of devices, each device being associated with a different financial account, the arrangement including a first system and a second system, the method comprising:

receiving a plurality of records from each device, each record including at least a measure of a consumption of the resource;

determining, for each device, charges for the consumption of the resource based on a subset of the records received from the device; and

transmitting, for each device, the charges and information concerning the financial account associated with the device to the first system for settlement of the charges, and for transmitting the plurality of records associated with the device to the second system for storage.

40. The method of claim 39 further comprising re-allocating the resource based on statistics derived from the records stored in the second system.

41. The method of claim 39 wherein the measure of the consumption of the resource in each record includes an amount of individual postage dispensed for utilization of a postal service.

42. The method of claim 41 wherein each record also includes a value indicative of cumulative postage

-25-

dispensed, the value taking into account the amount of the individual postage in the record.

43. The method of claim 42 wherein each record also includes an indicator indicative of a truncation of the value.

44. The method of claim 41 wherein each record is associated with a different transaction of postage dispensation.

45. The method of claim 39 wherein the plurality of records include more than two records, and the subset of the records includes two selected records.

46. The method of claim 39 wherein the resource includes a utility resource.

47. The method of claim 39 further comprising cryptographically processing the plurality of records.

48. The method of claim 47 wherein the plurality of records are cryptographically signed to authenticate the records.

49. A method for use in a system for assessing charges for consumptions of at least first and second different resources, the system including at least first and second devices, the first device providing a first measure of consumption of the first resource, the second device providing a measure of consumption of the second, different resource, the method comprising:

receiving from the first device the first measure of consumption of the first resource, and from the second device the second measure of consumption of the second, different resource;

determining first charges based on the first

-26-

measure of consumption of the first resource and second charges based on the second measure of consumption of the second, different resource; and

- 5 providing first information concerning the first charges and a first account associated with the first device, and second information concerning the second charges and a second account associated with the second device for settlement of the first and second charges.

- 10 50. The method of claim 49 wherein the first and second resources include different utility resources.

51. The method of claim 49 wherein the first resource includes a postal service.

52. The method of claim 51 wherein the second resource includes a utility resource.

- 15 53. The method of claim 52 wherein the utility resource is a natural gas resource.

54. The method of claim 52 wherein the utility resource is an electric resource.

- 20 55. The method of claim 51 wherein the first charges include an amount of postage dispensed for the postal service.